HYPER SPORTS CONVERSION KIT INSTRUCTION MANUAL

P/N 901-2175

INTRODUCTION

THIS INSTRUCTION MANUAL HAS BEEN PREPARED TO FACILITATE CONVERTING YOUR OLD GAME TO "HYPER SPORTS".

GAMES EQUIPPED WITH HORIZONTAL MOUNTED RASTER SCAN 19" MONITORS SHOULD BE USED.

THE POWER SUPPLY OUTPUT SOURCE VOLTAGES MUST BE STABLE FOR INPUT LINE VOLTAGE VARIATIONS OF FROM 90 TO 132 VOLTS A.C.

THE COMPUTER BOARD ASSEMBLY IN THIS KIT OPERATES MOST EFFICIENTLY AND RELIABLY WHEN THE POWER SUPPLY IS SET SO THE VOLTAGE ON THE BOARD IS + 5.0 VOLTS, ± 0.1 VOLT. TO CHECK THIS, PLACE A METER ACROSS + 5 VOLTS (PIN V) AND GROUND (PIN U), AT THE EDGE CONNECTOR. ADJUST, IF NECESSARY, THE + 5 VOLT CONTROL ON THE POWER SUPPLY.

WARNING

F.C.C. REGULATION COMPLIANCE

THE P.C. BOARD METAL CAGE SUPPLIED WITH THIS CONVERSION KIT MUST BE USED AND TERMINATED TO GROUND AT TIME OF INSTALLATION. METAL CAGE COVER MUST BE REPLACED, IF REMOVED TO FACILITATE MAINTENANCE OF P.C. BOARD ASSEMBLY.

THIS IS TO AVOID RADIO FREQUENCY RADIATION AND COMPLY WITH THE LIMITS FOR A CLASS "A" COMPUTING DEVICE PURSUANT TO SUBPART J OF PART 15 OF F.C.C. RULES, WHICH ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST SUCH INTERFERENCE WHEN OPERATED IN A COMMERCIAL ENVIRONMENT.

OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE INTERFERENCE IN WHICH CASE, THE USER AT HIS OWN EXPENSE, WILL BE REQUIRED TO TAKE WHATEVER MEASURES MAY BE REQUIRED TO CORRECT THE INTERFERENCE.

NOTICE

CONVERSION OF OLD EQUIPMENT NOT PREVIOUSLY TESTED TO COMPLY WITH THE LIMITS FOR A CLASS "A" COMPUTING DEVICE PURSUANT TO SUBPART J OF PART 15 OF F.C.C. RULES MAY VOID F.C.C. TYPE ACCEPTANCE.

GAME INSTRUCTIONS

* TAP "GO" AND PLAYER WILL ACCELERATE, SHOOT OR LIFT.
* PUSH "UP" AND PLAYER WILL JUMP OR SHOOT.
* GAME OVER IF YOU FAIL TO QUALIFY IN AN EVENT.

EVENTS

I. SWIMMING-100M FREESTYLE:

USE "GO" AND "UP" BUTTONS TO REGULATE THE SPEED AND BREATH OF SWIMMER.
TAP "GO" BUTTON(S) TO ACCELERATE SWIMMER.
PRESS "UP" BUTTON TO ALLOW SWIMMER TO BREATH WHEN "BREATH" DISPLAY APPEARS ON THE SCREEN.
SWIMMER WILL SUBMERGE IF "UP" BUTTON IS PRESSED ANY OTHER TIME. EQUAL THE COMPUTER'S TIME FOR 3,000 POINT BONUS.

II. SKEET SHOOTING:

PUSH EITHER "GO" BUTTON TO SHOOT.
SHOOTING DIRECTION, LEFT OR RIGHT, COINCIDE WITH "GO" BUTTON.
SHOOT CLAY WITHIN THE RED WINDOW TO SCORE. CONSECUTIVE HITS EXPAND THE WINDOW, IN SINGLE INCREMENTS, TO MAXIMUM.
A MISS WILL REDUCE THE WINDOW TO THE SMALLEST SHAPE.
500 POINT CLAY APPEARS AFTER NINE (9) CONSECUTIVE HITS.
1,000 POINT CLAY APPEARS AFTER 19 CONSECUTIVE HITS.
HIT ALL CLAYS FOR A "PERFECT" SCORE.

III. LONG HORSE:

PRESS AND RELEASE EITHER "GO" BUTTON TO ACCELERATE PLAYER.
PUSH "UP" BUTTON AT A PROPER POSITION ON THE RAMP TO JUMP TO THE HORSE AND AGAIN TO LIFT FROM THE HORSE.
WHILE IN THE AIR, TAP "GO" BUTTON(S) TO CONTROL ROLLS AND DISMOUNT POSE. POINTS ARE DECIDED ON THE NUMBER OF ROLLS AND DISMOUNT POSE.

GAME INSTRUCTIONS

IV. ARCHERY:

PRESS EITHER "GO" BUTTON TO RANDOMLY STOP WIND REEL.
REEL WILL AUTOMATICALLY STOP AT RANDOM IF "GO" BUTTON IS NOT PRESSED. WIND REEL DISPLAYS WIND DIRECTION (↓ OR ↑) AND VELOCITY (0 THRU 7 MPH).
PUSH "UP" BUTTON TO SHOOT AND HOLD TO CONTROL ANGLE.

V. TRIPLE JUMP:

TAP "GO" BUTTON(S) TO ACCELERATE PLAYER.
PRESS "UP" BUTTON AT A PROPER POSITION TO HOP, STEP AND JUMP.

VI. WEIGHT LIFTING:

PUSH "GO" BUTTON, EACH TIME, TO ADVANCE TO THE NEXT HEAVIEST CLASS. ONCE ADVANCED, BACKING UP TO A LIGHTER CLASS CAN NOT BE MADE.
PRESS "UP" BUTTON TO ELECT WEIGHT CLASS.
TAP "GO" BUTTON(S) TO LIFT THE WEIGHT.
PRESS "UP" BUTTON WHEN BAR BELL FLASHES AND CONTINUE TAPPING "GO" BUTTON(S) UNTIL THE THREE JUDGE INDICATORS LIGHT UP.

VII. POLE VAULT:

PUSH EITHER "GO" BUTTON AND RELEASE.
PRESS "UP" BUTTON TO VAULT AND RELEASE AT PROPER POSITION TO CLEAR THE BAR.

OPTIONAL DIP SWITCH SETTINGS

1. Dip Switch No.1 (8P Dip Switch)

Credits

Coin	Plays	SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8
1	1	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
1	2	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF
1	3	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF
1	4	ON	ON	OFF	OFF	ON	ON	OFF	OFF
1	5	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF
1	6	ON	OFF	ON	OFF	ON	OFF	ON	OFF
1	7	OFF	ON	ON	OFF	OFF	ON	ON	OFF
2	1	ON	ON	ON	OFF	ON	ON	ON	OFF
2	3	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON
2	5	ON	OFF	OFF	ON	ON	OFF	OFF	ON
3	1	OFF	ON	OFF	ON	OFF	ON	OFF	ON
3	2	ON	ON	OFF	ON	ON	ON	OFF	ON
3	4	OFF	OFF	ON	ON	OFF	OFF	ON	ON
4	1	ON	OFF	ON	ON	ON	OFF	ON	ON
4	3	OFF	ON	ON	ON	OFF	ON	ON	ON
FREE PLAY		ON	ON	ON	ON	ON	ON	ON	ON

2 Dip Switch No.2 (8P Dip Switch)

Setting Of Last Event

Last Event Settings	SW1
○ "Game Over" after the 7th event is over	OFF
Game continues after the 7th event is over	ON

Game Type

Style	Controls Used	SW2
Table	Use controls for 1 thru 4 players	OFF
Upright	Use controls for 1 or 2 players only	ON

○ DENOTES NORMAL SETTING

OPTIONAL DIP SWITCH SETTINGS

2. Dip Switch No.2 Settings continues

Audio Attraction

Attract Mode	SW3
No Music	OFF
○ Music	ON

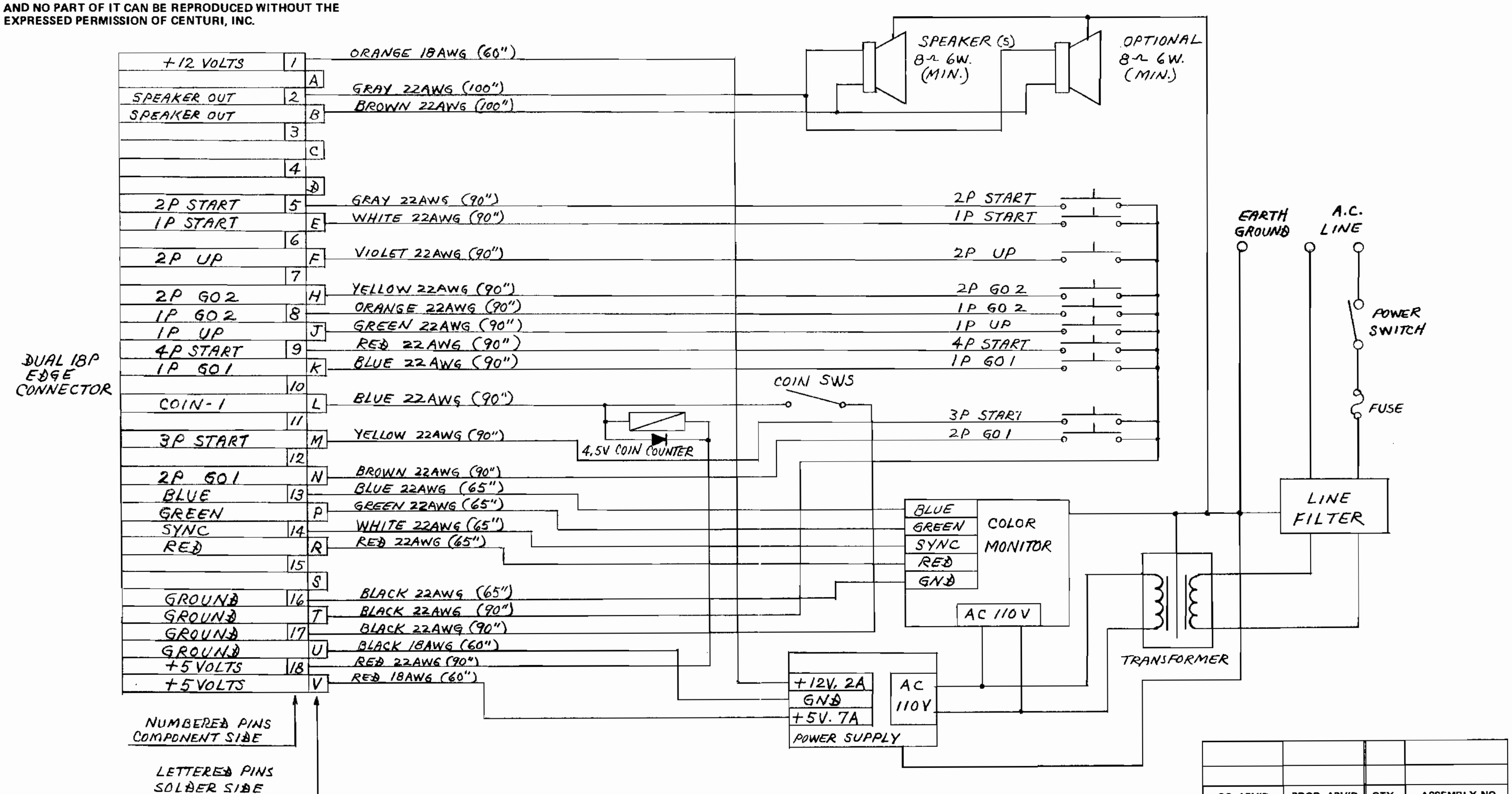
Ranking Data Setting

Memory At Power Up	SW4
○ Data Entered Remains	OFF
All Data Initialized	ON

GAME LEVEL OF DIFFICULTY

OPTIONS	SW5	SW6	SW7	SW8
EASY	OFF ON OFF ON	OFF OFF ON ON	OFF OFF OFF OFF	OFF OFF OFF OFF
NORMAL ○	OFF ON OFF ON OFF ON OFF ON	OFF OFF ON ON OFF OFF ON ON	ON ON ON ON OFF OFF OFF OFF	OFF OFF OFF OFF ON ON ON ON
DIFFICULT	OFF ON OFF ON	OFF OFF ON ON	ON ON ON ON	ON ON ON ON

○ DENOTES NORMAL SETTING



QC. APV'D	PROD. APV'D	QTY.	ASSEMBLY NO.

REV. LET.	ECN NO.	REVISION	BY

TOLERANCES
Unless Otherwise Specified

FRACTIONS	±	1/32
DECIMALS 2 PL	±	.015
DECIMALS 3 PL	±	.005
HOLES	+	.003
	–	.001
ANGLES	±	1/2°
SHT. MET BENDS	±	2°

centuri INC. HIALEAH, FLORIDA 33014

NAME: GENERAL WIRING DIAGRAM-HYPER SPORTS, U/R

MATL'S.	HEAT TREAT.	FINISH

DWN.	APP'D.	DATE	SCALE	PART NO.	REV.
MJ	[signature]	7-24-84	NONE		

AF 17899B

HYPER SPORTS

CPU/SOUND PC BOARD PARTS LIST

IC'S

Description	Part No.	Qty
74LS02 Quad 2 Input NOR	501-0105	1
74LS04 Hex Inverter	501-0108	1
74LS08 Quad 2 Input AND	501-0153	2
74LS32 Quad 2 Input OR	501-0156	2
74LS74 Dual D-Type Flipflop	501-0121	1
74LS138 3 To 8 Line Dcr/Dmulplxr	501-0200	6
74LS139 Dual 2 To 4 Line Dcr/Dmulplxr	501-0170	1
74LS174 Hex D-Type Flipflop	501-0135	1
74LS244 Octal Buffer Driver Tri-State	501-0214	7
74LS245 Octal Transceiver Tri-State	501-0202	2
74LS253 Dual 4 Input Mulplxr Tri-State	501-0436	4
74LS259 8 Bit Latch	501-0190	1
74LS367 Hex Buffer Tri-State	501-0176	2
74LS374 Octal D-Type Flipflop 3-State	501-0204	4
74LS393 Dual 4 Bit Binary Counter	501-0180	2
MB89001P-G CPU, Konami-1	501-0469	1
Z80A CPU	501-0250	1
VLM5030 Voice Synth (Sanyo)	501-0466	1
SN76489AN Sound	501-0467	1
MSM4066RS CMOS	501-0212	1
2114-3 SRAM 2Kx8 Bit 300ns	501-0483	2
TMM2016P-2 SRAM 2Kx8 Bit 200ns	501-0484	1
TC5517AP-2 SRAM 2Kx8 Bit CMOS, 200ns	501-0473	1
NE555 Timer	501-0224	1
2764-30 EPROM 8Kx8 Bit, 300ns	500-0026	9
6331-1 PROM 32x8 Bit, 50ns	500-0027	1
LA4460 Audio Amplifier	501-0437	1
uPC324C Op. Amplifer	501-0231	1

TRANSISTORS

2SA999E,F	502-0401	3

HYPER SPORTS

CPU/SOUND PC BOARD PARTS LIST

TRANSISTORS

Description	Part No.	Qty
2SC2320L, F, G	502-0379	4
2SD612	502-0402	2

DIODES

10D1	510-0654	3
1S1588	510-0611	2
RD4,3E,B1	510-0702	1

RESISTORS

4.7 Ohm, ¼W, ±5%	503-0535	2
10 Ohm, ¼W, ±5%	503-0553	1
75 Ohm, ¼W, ±5%	503-0558	1
100 Ohm, ¼W, ±5%	503-0473	1
120 Ohm, ¼W, ±5%	503-0576	1
200 Ohm, ¼W, ±5%	503-0448	2
220 Ohm, ¼W, ±5%	503-0433	23
470 Ohm, ¼W, ±5%	503-0407	8
1K Ohm, ¼W, ±5%	503-0413	13
2.2K Ohm, ¼W, ±5%	503-0400	1
3.3K Ohm, ¼W, ±5%	503-0431	3
4.7K Ohm, ¼W, ±5%	503-0405	7
5.1K Ohm, ¼W, ±5%	503-0454	1
5.6K Ohm, ¼W, ±5%	503-0438	3
10K Ohm, ¼W, ±5%	503-0417	9
20K Ohm, ¼W, ±5%	503-0459	1
22K Ohm, ¼W, ±5%	503-0440	2
47K Ohm, ¼W, ±5%	503-0439	1
82K Ohm, ¼W, ±5%	503-0429	1
100K Ohm, ¼W, ±5%	503-0406	3
220K Ohm, ¼W, ±5%	503-0401	1

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CPU/SOUND PC BOARD PARTS LIST

RESISTOR ARRAYS

Description	Part No.	Qty
4.7K Ohm x 4, 1/8W, ±5%	504-1043	2
2.2K Ohm x 8, 1/8W, ±5%	504-1028	5
4.7K Ohm x 8, 1/8W, ±5%	504-1045	2

VARIABLE RESISTOR

1K Ohm, Matsushita EVM-J4G	512-0672	1

CAPACITORS

30pf, 25V, Ceramic Disc	515-0791	1
100pf, 25V, Ceramic Disc	515-0710	4
150pf, 25V, Ceramic Disc	515-0825	1
220pf, 25V, Ceramic Disc	515-0826	1
330pf, 25V, Ceramic Disc	515-0729	1
470pf, 25V, Ceramic Disc	515-0778	3
0.022mf, 25V, Ceramic Disc	515-0731	2
0.01mf, 25V, Ceramic Disc	515-0777	1
0.1mf, 25V, Ceramic Disc	515-0700	76
10mf, 16V, Radial EE	516-0871	1
47mf, 10V, Radial EE	516-0802	2
220mf, 10V, Radial EE	516-0822	2
100mf, 25V, Radial EE	516-0804	1
220mf, 25V, Radial EE	516-0918	1
1000mf, 25V, Radial EE	516-0827	1
0.01mf, 50V, Mylar	517-0768	1
0.033mf, 50V, Mylar	517-0772	2
0.047mf, 50V, Mylar	517-0758	1
0.1mf, 50V, Mylar	517-0765	5
0.22mf, 35V, Tantalum	519-0873	3
0.47mf, 35V, Tantalum	519-0853	1
4.7mf, 16V, Tantalum	519-0885	1

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CPU/SOUND PC BOARD PARTS LIST

MISCELLANEOUS

Description	Part No.	Qty
Crystal 3.579545 Mhz (Daiwa)	507-0550	1
Crystal 14.31818 Mhz (Daiwa)	507-0560	1
Dip Switch, 8P	506-1000	2
Socket, IC, 28 Pin	514-1572	9
Socket, IC, 42 Pin	514-1582	1
Connector, Flat, 40P (3M)	401-1376	2
Cable, Flat, 40P (3M)	402-1543	13"
Lithium Battery, 3V	414-2022	1
Heat Sink, OS-Seiki, KN-5D	408-3008	1

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VIDEO PC BOARD PARTS LIST

IC'S

Description	Part No.	Qty
74LS04 Hex Inverter	501-0108	3
74LS08 Quad 2 Input AND	501-0153	3
74LS20 Dual 4 Input NAND	501-0114	4
74LS21 Dual 4 Input AND	501-0196	1
74LS32 Quad 2 Input OR	501-0156	4
74LS74 Dual D-Type Flipflop	501-0121	8
74LS86 Quad 2 Input Exclusive OR	501-0125	6
74LS139 Dual 2 To 4 Line Dcr/Dmulplxr	501-0170	3
74LS153 Dual 4 Input Mulplxr	501-0131	10
74LS157 Quad 2 Input Mulplxr.	501-0141	9
74LS161 Synchronous 4 Bit Counter	501-0137	2
74LS163 4 Bit Binary Counter	501-0184	5
74LS164 8 Bit Shift Register	501-0146	1
74LS174 Hex D-Type Flipflop	501-0135	5
74LS244 Octal Buffer Driver Tri-State	501-0214	8
74LS245 Octal Transceiver Tri-State	501-0202	5
74LS273 Octal D-Type Flipflop	501-0205	9
74LS283 4 Bit Binary Full Adder	501-0207	2
74LS368 Hex Inverter Tri-State	501-0211	1
74LS375 Quad Bistable Latch	501-0254	2
74LS377 Octal D-Type Flipflop	501-0182	2
MB14082M-G Gate Array	501-0470	1
MB14083M-G Gate Array	501-0471	2
MB14085M-G Gate Array	501-0487	1
KB27-504 Gate Array	501-0472	1
uPD2114LC-5 SRAM 1Kx4, 150ns	501-0485	4
P/D2128-20 SRAM 2Kx8, 200ns	501-0486	2
2149HL-3 SRAM 1Kx4, 55ns	501-0435	2
2764-30 EPROM 8Kx8, 300ns	500-0026	12
6301-1 PROM 256x4, 55ns	500-0028	2

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VIDEO PC BOARD PARTS LIST

RESISTOR ARRAYS

Description	Part No.	Qty
1K Ohm x 4, 1/8W, ±5%	504-1042	2
4.7K Ohm x 4, 1/8W, ±5%	504-1043	1
4.7K Ohm x 8, 1/8W, ±5%	504-1045	2
CAPACITORS		
47pf, 25V, Ceramic Disc	515-0713	4
150pf, 25V, Ceramic Disc	515-0825	2
470pf, 25V, Ceramic Disc	515-0778	1
0.1mf, 25V, Ceramic Disc	515-0700	101
MISCELLANEOUS		
Crystal 18.432 Mhz (Daiwa)	507-0572	1
Socket, IC, 28 Pin	514-1572	17
Connector, Flat, 40P (3M)	401-1376	2

HYPER SPORTS CONVERSION KIT CHECKLIST

INITIAL	ITEM DESCRIPTION	QTY REQ'D
JC	MAIN PRINTED CIRCUIT BOARD	1
JC	P.C. BOARD CAGE, COMPLETE (CHASSIS, TOP AND SIDE COVERS)	1
JC	CONNECTING WIRING HARNESS ASS'Y	1
JC	MARQUEE OVERLAY	1
JC	SIDE PANEL GRAPHICS (LEFT AND RIGHT)	1 SET
JC	CONTROL PANEL OVERLAY	1
JC	CONTROL PANEL DECALS (FULL SET) "PLAYER INSTRUCTION" DECAL- 1 "UP" DECALS- 2 "GO" DECALS- 4 "PLAYER" DECAL- 1 "1 PLAYER" DECAL- 1 "2 PLAYER" DECAL- 1 "3 PLAYER" DECAL- 1 "4 PLAYER" DECAL- 1	1
JC	SWITCH W/HOLDER	10
JC	PUSH BUTTON, BLUE	2
JC	PUSH BUTTON, RED	4
JC	PUSH BUTTON, WHITE	4
JC	FCC COMPLIANCE LABEL	1
JC	SCHEMATICS	1 SET
JC	INSTRUCTION MANUAL	1

centuri™ inc.

Centuri, Inc. • 1780 W. 4th Avenue • Hialeah, Florida 33010
Telephone: 305-558-5200 • Telex: 803694 • ANSB Centuri